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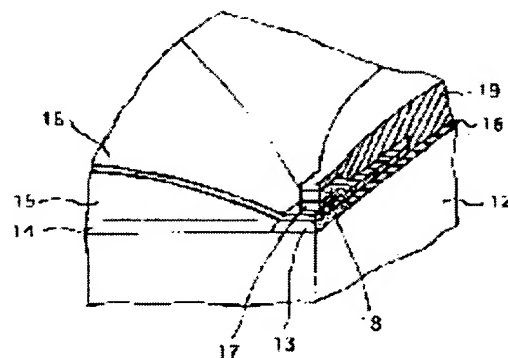
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## (54) MAGNETIC HEAD AND MAGNETIC RECORDER

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To increase the output of a magnetic head formed by using a ferromagnetic tunnel junction element, to prevent the oxidation of the magnetic layers and antiferroelectric layer constituting this ferromagnetic tunnel junction element, to enhance reliability and to deal with a trend toward a much higher recording density.

**SOLUTION:** This magnetic head is composed of the first magnetic layer 13 consisting of a soft magnetic material, the second magnetic layer 17 having the magnetization in a direction orthogonal with the magnetization direction in the initial state of the first magnetic layer 13, the antiferroelectric layer 18 formed on the magnetic layer 17 and an insulating layer 16 which is interposed between the magnetic layers 13 and 17 and tunnel-joins both. The magnetic layer 17 is arranged in the position slightly apart from the end on the magnetic recording medium side and is coated with a coating layer (gap layer) so as not to be exposed on the surface.



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